# Health Benefits of Oranges For Cooking and Health



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# **Getting Started**

#### Chapter # 1: Intro

Who doesn't love the idea of having sweet, juicy, vigorous and vitamin C-packed oranges for breakfast? Athletes eat it whenever they need a quick, natural shot of energy and most of the population enjoys them just for their flavor, not knowing about their health benefits. And this is exactly why this book must be read by all; almost everyone known oranges contain vitamin C but there aren't many people who know what comes as a result of it. Better yet, there are many other nutrients and health promoting compounds present in oranges that have far-fetched effects on the human body that would drastically increase the daily intake of oranges by the common populace, if found out. But everything needs to be built from the bottom-up and this is exactly what will be done in the forthcoming chapters.

Oranges are spherical fruits belonging to the citrus species consisting of two major types: sweet and bitter. The sweet orange is the one that is generally consumed and is known by its scientific name as *Citrus Sinensis* whereas the bitter orange is known as *Citrus Aurantium*. Popular variations of the sweet orange include Navel, Jaffa, Valencia and Blood-oranges which are a hybrid species, more aromatic in flavor, smaller in size and with red hues throughout their flesh. Most people do not get into the classification and to refer to the sweet orange as simply orange. The orange tree is a multiseasonal, flowering tree growing to a height of 9-10 m; some species have been reported to grow as long as 15 m. Its oval leaves are 4-10 cm long and are alternatively arranged throughout the stem. The bottom of the tree, including the trunk and roots is called rootstick while the fruit bearing part of the tree is known as scion. Almost every variety of sweet oranges contains 10 segments (carpels) and six seeds. The orange fruit has a green color when it is unripe and upon reaching ripeness turns orange to yellow-orange.

The word orange is derived from the Sanskrit word for "orange tree"; the Sanskrit reached the European continent after going through Persian and Arabic derivations. Oranges are believed to be originated thousands of years ago in the Asian region ranging from South of China to Indonesia. Oranges were not cultivated in the Middle Eastern region till the 9th Century and it wasn't until the 15th Century that they made into Europe, thanks to ethnic groups like Moors and traders like the Portuguese and Italians who voyaged to Asia. From Europe, oranges found their way into the Caribbean islands in the late 15th Century when Christopher Columbus brought the seeds on his voyage to the New World. Spanish explorers brought oranges to Florida & California in the 16th and 18th Century respectively. Currently, some of the largest producers of oranges include Brazil, USA and China with each country producing 18, 8 and 6.5 million tones of oranges annually making orange trees the most cultivated trees in the world.

Coming to the health-promoting side of oranges, it should be known that an orange has over 170 different healthy phytochemicals and more than 60 flavonoids, almost all of which act as strong anti-oxidants & anti-inflammatory bodies. Looking at these qualities it wouldn't be wrong to relate oranges with the proverb, "an apple a day"! There are countless reasons why oranges fit this, they promote

clear skin, lower the risk of chronic diseases like diabetes and arthritis, improve the immunity system and there are many other benefits waiting to be reaped by worthy consumers.

The five major health-promoting areas of oranges include:

- Oranges contain vitamin C which is an excellent antioxidant; consumption of vitamin C helps the body improve its immunity system thereby, protecting it against free radicals and oxidants that cause chronic diseases such as arthritis.
- Due to lack of calories, saturated fats and abundance of dietary fiber, oranges are very useful for controlling excess body weight. The specific dietary fiber protects the colon from toxic chemicals as wells as cancer-causing compounds.
- The phytochemicals mentioned earlier have a very healthy effect on the body as a whole, especially the cardiovascular part. The phytochemicals are not only effective anti-oxidants but also protect against cardiovascular diseases like stroke and high cholesterol levels.
- Vitamin A and B-complex vitamins also prove very healthy for the body as they protect against ailments like cancer of the lungs and oral cavities.
- Minerals like potassium and calcium form important components of cell structures and it is therefore vital that the body has optimum supplies of these minerals. Oranges are known to provide these minerals which help control heart rate and blood pressure by countering high levels of sodium in the body.

Detailed analysis of the health benefits as well as nutrient composition is provided in the following chapters. Follow the book, chapter by chapter and you'll soon find out all the good stuff you've been missing.

#### Chapter # 2: Nutritional Worth

Apart from being refreshingly tasty, oranges are packed with several nutrients that prove very nutritious for the body. The first and foremost of these nutrients is vitamin C; a single orange can fill over 50 percent of a person's daily vitamin C requirements. Vitamin C is vital for the body as it protects the body against the infamous free radicals that are the main disease causing elements in the body; along with stopping free radicals, vitamin C also helps in breaking down acids in the stomach that are responsible for forming ulcers. Vitamin C along with fiber, also present in oranges build up an optimum level of intestinal health. Folate is a water soluble vitamin (one of the B vitamins), vital for healthy cell production in the body; without the right amount of Folate, our body would fall victim to viruses resulting in sickness.



Thiamin is another of the B vitamins, present in oranges; it is entrusted with tasks like maintaining nerve functions and processing enzymes related to muscles and is therefore vital for the body. Oranges also contain vitamin A that helps the immune system against diseases like cancer; eating a single orange will not completely fill the vitamin A tank but it will sure take the load off other food items responsible for this task. Potassium is a very popular mineral contained within oranges; being an electrolyte it is responsible for keeping the body hydrated and the heartbeat regulated. Even though an orange contains just 237 mg of potassium, only 6 percent of the daily requirement, it sure is a tasty way to get the nutrient in. Zeaxanthin is a phytochemical that helps cure inflammations and prevent rheumatoid arthritis. Drinking a single glass of orange juice has been found to decrease the risk of arthritis drastically for some people.

A detailed account of the nutritional wellness of oranges is given in the following table. The amount taken is 100 grams.

| Calorie Information       |         |  |
|---------------------------|---------|--|
| Nutrient                  | Amount  |  |
| Total Calories            | 47.0    |  |
| From Carbohydrates        | 42.8    |  |
| From Fat                  | 1.0     |  |
| From Proteins             | 3.2     |  |
| Carbohydrate              | 25      |  |
| Nutrient                  | Amount  |  |
| Total Carbohydrates       | 11.7 g  |  |
| Dietary Fiber             | 2.4 g   |  |
| Starch                    | 0.0 g   |  |
| Sugar                     | 9.4 g   |  |
| Fats & Fatty Ac           | cids    |  |
| Nutrient                  | Amount  |  |
| Total Fat                 | 0.1 g   |  |
| Saturated Fat             | 0.0 g   |  |
| Mono-saturated Fat        | 0.0 g   |  |
| Polyunsaturated Fat       | 0.0 g   |  |
| Total Omega-3 Fatty acids | 7.0 mg  |  |
| Total Omega-6 Fatty acids | 18.0 mg |  |
| Proteins                  |         |  |
| Nutrient                  | Amount  |  |
| Protein                   | 0.9 g   |  |
| Vitamins                  |         |  |
| Nutrient                  | Amount  |  |
| Vitamin A                 | 225 IU  |  |
| Vitamin C                 | 53.2 mg |  |
| Vitamin E                 | 0.2 mg  |  |
| Thiamin                   | 0.1 mg  |  |

Riboflavin

0.0 mg

| Proteins         |         |
|------------------|---------|
| Nutrient         | Amount  |
| Protein          | 0.9 g   |
| Vitamins         | -       |
| Nutrient         | Amount  |
| Vitamin A        | 225 IU  |
| Vitamin C        | 53.2 mg |
| Vitamin E        | 0.2 mg  |
| Thiamin          | 0.1 mg  |
| Riboflavin       | 0.0 mg  |
| Niacin           | 0.3 mg  |
| Vitamin B6       | 0.1 mg  |
| Folate           | 30 mcg  |
| Vitamin B12      | 0.0 mg  |
| Pantothenic Acid | 0.3 mg  |
| Choline          | 8.4 mg  |
| Minerals         |         |
| Nutrient         | Amount  |
| Calcium          | 40 mg   |
| Iron             | 0.1 mg  |
| Magnesium        | 10 mg   |
| Phosphorus       | 14 mg   |

#### Chapter # 3: Selection and Storage

Oranges are generally available throughout the winter season, namely through the months of October till February. Fruits are harvested from trees using machines or human labor; the former method sometimes resulting in some minor injuries to the fruit but it should be noted that quality of the crop is not altered to a significant extent. Contrary to popular belief, oranges do not necessarily need to be bright orange in color in order to be classified as good. In fact, the uniform color of several types of oranges is due to injection of an artificial dye, Citrus Red Number 2 into their skins. Organic or not, oranges that have a light green or brown patches may be as ripe & tasty as "orange" oranges.

One thing you should look out for in every type of orange is a mold or soft spot. Try your best to choose oranges that are smooth in texture, firm in shape and heavy in size as these are bound to have higher juice content than any of the spongy or light weight oranges; oranges that are of a medium built but have a heavy feel are much better than light-weight large oranges. When picking out oranges in stores, it is best to select an orange that is firm but yields to gentle pressure, free of wrinkles and generates a sweet aroma.

Oranges can be stored in both room conditions as well as in a refrigerator; both these conditions will keep the lifetime of oranges for a period of 2 weeks, until which they retain identical levels of vitamin content. Either way, it is best to store oranges loosely rather than in a plastic bag, as plastic bags tend to accumulate moisture quite easily resulting in mold formation in oranges. Freshly squeezed orange juice can also be stored for later use by freezing the juice in ice cube trays whereas orange zest can be dried and stored in an airtight container in a dry place.

# Chapter # 4: Preparation

Oranges can be eaten as a snack, squeezed into juice or stored for its zest; preparation of an orange is not a cumbersome task, still following a few guidelines can help in developing a more efficient way of doing things.

A thick skinned orange is first cut horizontally thought it's center and then divided into halves or more divisions whereas a thin skinned orange can easily be peeled with the help of one's finger or through a knife. If you want to peel a thicker skinned orange, an easy way is to first cut a small section of the peel from the top of the orange followed by four longitudinal cuts from the top to the bottom, peeling away each cut as it is made.



Oranges are several times used in recipes in the form of orange juice. The foremost tip for obtaining orange juice is that the orange must be at room temperature. The juice can then be extracted in either of the two ways, by a juicer or through squeezing by hand.

If the recipe calls for zest, organically grown oranges would be your best bet. Conventionally grown fruits almost always have pesticide residues on their skin followed by artificial coloring that contaminates the skin of the orange to quite an extent, and as skin is the main component of zest, it is also maligned. The orange should first be washed and dried; a zester should then be used to remove the peel of the orange. Be sure not to remove the white part along with the zest, as it is bitter and not fit for use. The zest can then be chopped or modified as per requirements.

### **Health Benefits**

#### Chapter # 1: Not Just Vitamin C

It is a common belief in non-scientific circles that eating oranges has the same benefit as consuming vitamin C supplements; it should therefore be known that this statement is incorrect. Oranges constitute of many vitamins and minerals, one of which is vitamin C; this gives oranges benefits from vitamin C as well as from all the other nutrients it contains. Italian researchers at the Division of Human Nutrition at the University of Milan carried out studies to eradicate this stereotype.

Firstly, seven healthy people were chosen and given three drinks, two weeks apart.

- Blood orange juice that contained 150 mg of vitamin C.
- Fortified water that contained 150 mg of vitamin C.
- A sugar and water solution that contained no vitamin C.

Blood samples of the test subjects were extracted before the drink was consumed, after every subsequent hour for the next 8 hours and finally after 24 hours of consumption. These blood samples were then exposed to the oxidizing chemical hydrogen peroxide and free-radical damage to the DNA was assessed at 3 & 24 hours since exposure. It was analyzed that protective effect was only seen when orange juice was consumed.

- After drinking orange juice, damage to the DNA stood at 18% less after 3 hours & 16% less after 24 hours.
- No protection was seen with drinks containing only vitamin C and sugar.

This clearly shows that the goodness of orange juice is not equivalent to that of vitamin C and only the reverse is true. Another study was carried out by the same group with significantly large amounts of vitamin C and only then did vitamin C showed antioxidant properties. But the fact that vitamin C was not the only one responsible for the protection showed that something much more complex was at work. Many scientists believe that the sugars in orange interact with vitamin C to generate the free-radical protection while others believe that phytochemicals are mainly responsible for the antioxidant effect. Research is still ongoing on this topic but one thing is for sure that freshly squeezed orange juice would prove much better for a person's health than bottled vitamin C supplements.

#### Chapter # 2: Promotes Cardiovascular Health

The cardiovascular system is the combined name given to the circulatory system and the heart; together they make up the sophisticated network that delivers blood to the tissues in various parts of the body. With each heartbeat blood is pumped throughout the body, blood that carries oxygen and other vital nutrients that support life. Every single day, almost 5 liters of blood travels for about 60,000 miles in every branch and cross, from one organ to another. From the blood pumping heart to the thinnest of the arteries, the whole cardiovascular system must be in its top form if the body is to stay in its optimal form.



World Health Organization's published a recent draft namely, *Diet, Nutrition and the Prevention of Chronic Disease*, that conclusively comes to the point that a diet featuring citrus fruits provides much needed protection to the cardiovascular system. Orange owes this benefit to mainly three classes of nutrients.

- Folate, which is known for lowering cardiovascular risk factor.
- Homocysteine, which is responsible for lowering blood pressure, protection against stroke and cardiac ailment.
- Vitamin C, carotenioids and flavonoids which have other cardiovascular promoting effects.

A study carried out by the American Heart Association showed that the consumption of citrus fruits like oranges and grapefruit was directly related to lowering the risk of strokes. Aedin Cassidy, the study's lead author along with her colleagues used 14 years of data from the Nurse's Health Study that included 69,622 women who registered their food intake every four years. The analysis concluded with the finding that women who ate a higher amount of citrus fruits had 19% lower risk of blood clotting and acute strokes compared to women who consumed least amounts.

A low sodium intake is essential for lowering blood pressure but according to new findings, increasing one's potassium intake may just be as important for optimum blood pressure. Blood pressure, which is the force the blood exerts on the walls of blood vessels, is a very efficient measure of the heart's healthiness; sodium can cause an increase in blood pressure whereas potassium can bring down the pressure to the required rate. According to the 2010 Dietary guidelines, the consumption of potassium should be 4700 mg a day and it was found out that most people were not fulfilling this requirement.

Potassium is a mineral responsible for controlling electrical activity of the heart, building muscle and regulating acid-base balance. Scores of researches related to potassium have linked it with lowering blood pressure. Mechanisms as to how it achieves this feat include excretion of sodium in the urine, improving insulin sensitivity and decreasing inflammation. Mark Houston, MD, MS and the Director of the Hypertension Institute at St. Thomas Hospital says that if people increased their potassium intake to the recommended levels they would be able to reduce their rate of hypertension by 10%. Potassium's perks go beyond lowering just the blood pressure. In one study comprising of 12,000 adults, a high intake of potassium was found to decrease the risk of dying by 20% from all causes. Participants who consumed 4,069 mg of potassium every day had a 49% and 37% lower risk of death from ischemic heart disease and cardiovascular disease respectively. In addition to all this, the silver lining is that the risk of strokes is also decreased with greater potassium intake. An analysis of 10 studies showed that for every 1,000 mg increase in the intake of potassium, the stroke risk decreased by 11%. All these studies conclusively showed that potassium had a vital role in the body's wellbeing.

There are great many sources of potassium, one of which is oranges. A 100g serving of orange consists of 151 mg of potassium and though, oranges may not provide all of the potassium needed to reach the recommended guidelines, it sure helps a lot.

#### Chapter # 3: Immunity Booster

Vitamin C is the main water-soluble anti-oxidant chemical in the body responsible for disarming free radicals and protecting against damage caused by them to cells. But many would be asking that what exactly is the danger of oxidants and how does vitamin C in oranges protect us? Free radicals can damage the DNA inside cells especially in areas of body where there is a high cell production rate, like the digestive system; preventing DNA alterations are necessary as they can soon lead to the deadly disease of cancer and ultimately lead to death if not treated in its early stages. Furthermore, oxidation due to free radicals to other cell structures leads to painful inflammation as the body tries to get rid of the damaged parts. Antioxidants like vitamin C can cut down on free-radicals before they can damage the DNA by triggering inflammatory cascade resulting in less severe symptoms of inflammations such as asthma and osteoarthritis.

Cholesterol is also another substance affected by free-radicals. Do you know how arteries get blocked? Free radicals oxidize cholesterol, which results in the cholesterol sticking to the walls of arteries, subsequently resulting in the buildup of plaque that eventually grows large enough to cause full on heart attack or stroke. Vitamin C can neutralize these free radicals and therefore, preemptively prevent plaque buildup.



There are natural compounds that have been found in orange peel that has the ability to lower cholesterol as effectively as Statin drugs. According to a study carried out by US and Canadian researchers published in the Journal of Agriculture and Food Chemistry, citrus fruits such as oranges have peels that contain compounds known as polymethoxylated flavones; these compounds have the potential to lover bad cholesterol as effectively as some prescription drugs and that too without side-effects. In the study, laboratory animals with induced high cholesterol were given a diet containing 1% PMFs and their blood samples were analyzed. It was seen that their level of total cholesterol and bad cholesterol was reduced by 19-27% and 32-40% respectively. Furthermore, the treatment did not have any effect on the levels of good cholesterol and no other negative side effects were seen on the animals fed with PMFs.

Although there are a variety of citrus foods that contain PMFs, the most common ones are those found in tangerines and oranges: tangeretin and nobiletin. Also, peel is not the only part the PMFs are restricted to; juices of these fruits also contain PMFs but they are very low in concentration. For instance, you would have to drink about 20 glasses of orange juice just to get the human equivalent of

PMFs. However, extracting just a tablespoon of orange peel from a well scrubbed orange or tangerine every day can provide the same amount gained from 20 orange juices. The peel can be used to flavor teas, salads, dressings, soups, yogurts or in porridges such as oatmeal, buckwheat or rice. The current mechanism of PMFs relates it to Statin drugs that act inside the liver and inhibit the production of bad cholesterol.

# Chapter # 4: Fights Cancer

Cancer is one of the most deadly and infamous disease in the world; it is characterized by uncontrolled division of abnormal cells in any part of the body, can spread to the whole body and cause death if not treated in its early stages.

Oranges have been found to contain compounds known as liminoids that fight cancers of skin, lings, mouth, breast, colon and stomach. Moreover, scientists are discovering that the body has the ability to absorb liminoids present in oranges by the same amount as vitamin C. In oranges, liminoids are present in the form of limonin glucoside, where the limonin is attached to a sugar molecule. The sugar is effectively shaved off, releasing limonin that is absorbed by the body. In an ARS study, 16 volunteers were tested with a dose of limonin glucoside in amounts equivalent to 1-7 glasses of orange juice. Blood tests after consumption showed that limonin was present in the plasma of all subjects except one whereas concentrations were highest within a time frame of 6 hours after consumption. Still, after 24 hours traces of the compound were found in 5 of the volunteers. The bioavailability and persistence of liminoids has made it a potent anti-carcinogen that has the ability to combat continuously against cancerous cells.



In a study published in the Journal of the American College of Nutrition, researchers evaluated data from over 6000 adults enrolled in the Third National Health and Nutrition Examination Survey. The researchers studied the presence of a bacterium, Helicobacter pylori which are responsible for causing peptic ulcers that ultimately lead to stomach cancer. The researchers found that participants with the highest blood levels of vitamin C had a 25% lower incidence of the infection with the bacterium, confirming that orange does play a part in lowering cancer risk. These conclusions lead the lead researcher, Dr. Joel A. Simon at the San Francisco VA Medical Center to suggest that any person who has been tested positive with the bacterium to beef up his/her consumption of oranges.

A study published in the September 2003 issue of Cancer Epidemiology, Biomarkers and Prevention analyzed the dietary data collected from over 60,000 people in Shanghai, China. It was found that people who consumed the most amount of beta-cryptoxanthin, a compound found in oranges, had a 27% lower risk of lung cancer. Additionally, when smokers alone were evaluated, it was found that those consuming the compound had a 36% lower risk of getting lung cancer, compared to those who didn't consume the compound at all.

Another very deadly variant of cancer is leukemia, which is a cancer that originates in the bone marrow, impairing the production of all types of blood cells: white blood cells, platelets and most importantly red blood cells. Every year about 2000 – 3000 children are diagnosed with the deadly disease, representing about 30% of all cases. Childhood leukemia is characterized by fever, fatigue, bone pain and pale complexion due to low levels of red blood cells. A research was carried out called the *Northern California Childhood Leukemia Study* that compared the diet of 328 children who had been diagnosed with leukemia between the ages of 2 to 14. The mother of the child was given a questionnaire containing queries about the child's intake of types of foods and vitamin supplements from birth till the age of 2. The risk of leukemia was 51% lower in children who were regularly consuming oranges or bananas compared to children with lowest intake of the fruits. Orange juice was found to lower the risk by 46% confirming that orange, when consumed before age 2, lowered the risk of childhood leukemia.

#### Chapter # 5: Protection against Arthritis & Muscle-Wasting

Rheumatoid arthritis is a chronic disease that affects the smaller joints in the hand and feet. Unlike the wear and tear damage of Osteoporosis, this type of arthritis affects the lining of one's joints and causes a painful swelling that leads to bone erosion and joint deformity. A new research has been published in the American Journal of Clinical Nutrition that adds to the suggestion of drinking at least a glass of orange juice in a day. Data collected by the EPIC study, European Prospective Investigation of Cancer Incidence, of 25000 subjects showed that participants who had the highest intake of the phytonutrients Zeaxanthin, carotenioids and beta-cryptoxanthin had a lower risk of developing rheumatoid arthritis than those consuming little or no amount of these nutrients.

- Those with the highest intake of Zeaxanthin had a 52% less chance to develop arthritis.
- While those who consumed the highest amount of beta-cryptoxanthin had a 49% reduction in the risk.



Oranges contain potassium and potassium has a number of benefits, one of which is protection against muscle wasting. As a person ages, the body starts to lose its vigor & energy and eventually the person starts to lose muscle mass. Muscle wasting can eventually lead to mobility issues like fractures, osteoporosis and loss of physical function. Potassium can prevent this muscle loss and its farfetched effects by producing an alkaline diet that relieves metabolic acidosis caused by eating the typical fast-food diet of high protein foods, beverages and cereal grains. A study showed that participants who consumed 5,266 mg of potassium from fruits & vegetables had 3.6 pounds more lean tissue than those who did not consume fruits at all. It is to be noted that this amount of lean tissue is as great as the muscle mass lost over a decade in older adults. Therefore, eat oranges whenever you can to protect yourself against this loss in mass, quality, function and strength.

# **Recipes**

#### Chapter # 1: Orange Rosemary Chicken

Makes: 4 servings

Prep time: 10 minutes

Cooking time: 1 hour 15 minutes

#### **Ingredients:**

1. 1 whole quartered chicken

2. 1 tablespoon olive oil

3. 2 cups hot water

4. 1/3 cup orange marmalade

5. <sup>3</sup>/<sub>4</sub> cup orange juice

6. ½ cup maple syrup

7. 2 teaspoons fresh rosemary

8. 2 teaspoons Dijon mustard

#### **Directions:**

First, prepare the glaze by stirring the orange juice, maple syrup, marmalade, Dijon mustard and chopped fresh rosemary in a low-heated saucepan for about 2 minutes or until the marmalade dissolves. After that, increase the heat to medium-high and simmer it for 15 minutes. After preparing the glaze, heat 1 tablespoon of olive oil in a frying pan and cook the chicken for about 2-3 minutes, until each side turns brown. Place two cups of hot water and 2 tablespoons of glaze on a roasting pan and place the chicken pieces in the mixture. Cover it with foil, bake at 180 degrees Celsius and turn it over once after 45 minutes. Preheat a barbecue grill on medium intensity, brush the chicken with the glaze and cook it for 2-3 minutes until caramelized.

# Chapter # 2: Orange & Beetroot Chopped Salad

Makes: 6 servings

Prep time: 20 minutes

#### **Ingredients:**

1. 2 tablespoons extra-virgin olive oil

2. 1 baby lettuce

3. 1 tablespoon orange juice

4. 1 large orange, peeled and roughly chopped

5. 1 small carrot peeled and grated

6. A 450g can of baby beetroot

7. ½ cup chopped walnuts

8. <sup>1</sup>/<sub>4</sub> cup fresh parsley leaves

#### **Directions:**

Firstly, place the oil & orange juice in a screw-top jar and season it with pepper and salt. Secure the lid and shake to mix. Take the lettuce and remove its outer leaves and core. Wash and pat dry individual leaves with a tea towel. Roughly chop them and place lettuce, orange, carrots, beetroot, parsley and walnuts in a bowl, finally adding dressing to them. Toss the ingredients to combine and serve.

# Chapter # 3: Orange Drizzle Cake

Makes: 8 servings

Prep time: 55 minutes

Cooking time: 40 minutes

#### **Ingredients:**

1. 1 thin-skimmed orange along with the zest of large one to garnish

- 2. 250g unsalted melted butter
- 3. 2 cups self-rising flour
- 4. 2 cups caster sugar
- 5. 4 eggs
- 6. 2 tablespoons unsalted butter
- 7. 1 ½ cups icing sugar
- 8. Juice of half an orange
- 9. Squeeze of a lemon juice

#### **Directions:**

Preheat the oven to 170 degrees centigrade and grease an 11x24 cm loaf pan. Chop the orange along with skin into small pieces and discard any seeds. Process this produce in a food processor until a fine chop appears. Add flour, butter, eggs and caster sugar and process it until the mixture turns light and smooth. Pour the mixture onto a pan and bake for 40 minutes until the cake is golden. Leave the cake in the pan for 5 minutes, after which bring it out onto a wire rack and allow it to cool completely. For the icing, place butter in a saucepan and add icing sugar, lemon juice and orange juice to it. Stir until a soft icing is obtained, cool it slightly and finally drizzle over the cake. Garnish the cake with zest and serve.

# **Conclusion**

The delicious orange has proven itself to be a worthy contender in the culinary world as well as the scientific one. It is packed with vitamins, minerals and health-promoting compounds that are individually being used in the several medicines; just imagine the effect on your body when these are combined and keep in mind that as this is natural, it has no side effects. So add orange in any form in your daily diet and reap the benefits you have been missing on.



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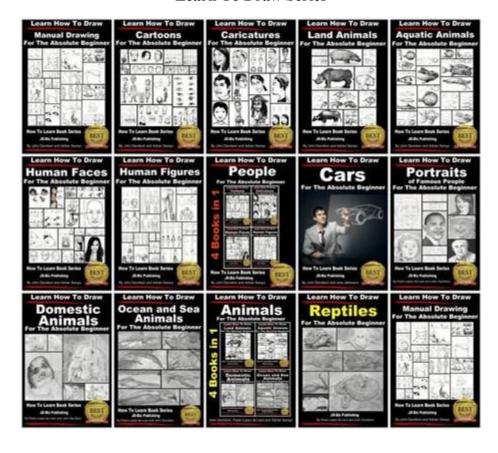
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